



HBW-7796

Seat No. _____

First Year B. Physiotherapy Examination

September - 2017

Exercise Therapy - I & Massage

Time : **3 Hours]**

[Total Marks : **100**

- Instructions :** (1) Write legibly and to the point.
(2) Draw diagrams wherever necessary.

SECTION - I

- 1 Long Answers Questions : (2 out of 3) 20**
- (1) Explain Fundamental starting position of standing and discuss various derived positions from standing.
 - (2) Define Goniometry along with uses and principles of goniometry. Types of Goniometry.
 - (3) Explain different types of breathing exercises. Explain indication and contraindications for the same.
- 2 Shorts notes : (2 out of 3) 10**
- (1) Explain various apparatus used for upper limb in exercise therapy
 - (2) Define Group exercises. Discuss advantages and disadvantages for the same.
 - (3) Classify movements and discuss free exercises.
- 3 Short Answer Questions : (5 out of 6) 10**
- (1) Isotonic contractions
 - (2) Muscles of respiration
 - (3) Anatomical lever
 - (4) Define : Strength and Endurance
 - (5) Trick movements
 - (6) Anatomical Pulley

4 Multiple choice Questions :

10

- (1) Which is not a percussion manipulation?
(a) Clapping (b) Hacking
(c) Rolling (d) Tenting
- (2) Mechanical Advantage (MA) is found always maximum in _____ order of lever ?
(a) First (b) Third
(c) Second (d) None of the above
- (3) Friction is a type of
(a) Stroking manipulation
(b) Pressure manipulation
(c) Percussion manipulation
(d) Vibratory manipulation
- (4) For measuring Elbow range of motion, the fulcrum of Goniometer should be placed at
(a) Olecranon process (b) Medial Epicondyle
(c) Lateral Epicondyle (d) Radial styloid process
- (5) There are the groups of the muscles which contract to provide the force required to produce the movement
(a) Synergist (b) Antagonist
(c) Fixators (d) Agonist
- (6) In which of the Fundamental starting position, centre of gravity is higher
(a) Lying (b) Sitting
(c) Kneeling (d) Standing
- (7) Mechanically the pulley is most efficient when the muscle is inserted at the _____ angle to the bone
(a) 30° (b) 45°
(c) 60° (d) 90°
- (8) During upright standing position the center of gravity lies approximately at
(a) L4 (b) L5
(c) S2 (d) S4
- (9) Maximum weight which can be lifted only once
(a) Ten repetition maximum
(b) One repetition maximum
(c) Both of above
(d) None of above
- (10) Nodding movement of head is the example of _____ order lever
(a) 1st (b) 2nd
(c) 3rd (d) 4th

SECTION - II

- 5 Long Answer Questions : (2 out of 3) 20**
- (1) List down various Walking aids. Explain axillary crutches and types of crutch walking.
 - (2) Explain in detail about physiological and therapeutic effects of soft tissue manipulation. Brief about the absolute and relative contraindications for the same.
 - (3) Define Suspension Therapy. Discuss different types of suspension. Explain the procedure for suspension of shoulder joint to increase joint range.
- 6 Short Notes : (2 out of 3) 10**
- (1) Write in detail about limb length discrepancy in lower limb.
 - (2) What are resisted exercises. Write in detail about various methods of application of resistance.
 - (3) Define Posture. Describe postural mechanism in detail.
- 7 Short Answer Questions : (5 out of 6) 10**
- (1) Centre of gravity and Line of gravity
 - (2) Angle of pull
 - (3) Axes and planes
 - (4) Phases of gait
 - (5) Swing to and Swing through gait pattern
 - (6) Mechanical Advantage
- 8 Multiple Choice Questions : 10**
- (1) Posterior pelvic tilt is produced by
 - (a) Hip extensor and abdominals
 - (b) Hip flexor and lumbar extensors
 - (c) Hip abductor and trunk side flexor
 - (d) None of the above
 - (2) Correct sequence of stair descending (partial weight bearing) with pair of axillary crutch
 - (a) Crutch, affected leg and normal leg
 - (b) Crutch, normal leg and affected leg
 - (c) Normal leg crutch and affected leg
 - (d) Normal leg affected leg and crutches

- (3) During shoulder flexion in sitting position
 - (a) Shoulder flexors work eccentrically
 - (b) Shoulder flexors work isometrically
 - (c) Shoulder flexors work concentrically
 - (d) Shoulder extensors work concentrically
- (4) While measuring range of movement with goniometer, is done first
 - (a) Align fulcrum over anatomical axis of joint
 - (b) Align stable arm over proximal segment
 - (c) Align movable arm over distal segment
 - (d) None of the above
- (5) A patient in pain over wrist joint can use _____ for partial weight bearing
 - (a) Axillary crutch (b) Forearm support crutch
 - (c) Elbow crutch (d) Cane
- (6) Trick movement for shoulder abduction is
 - (a) Trunk lateral flexion to opposite side
 - (b) Trunk lateral flexion to same side
 - (c) Trunk rotation
 - (d) Trunk extension
- (7) End feel of knee flexion is
 - (a) Soft (b) Firm
 - (c) Hard (d) None of the above
- (8) When muscle strength or co-ordination is inadequate to perform movement an external force is applied to compensate for the deficiency.
 - (a) Free exercises (b) Active exercises
 - (c) Assisted exercises (d) Resisted exercises
- (9) Scar tissue can be stretched and loosened by
 - (a) Friction (b) Hacking
 - (c) Effleurage (d) All of the above
- (10) _____ massage is used in case of edema
 - (a) Stroking (b) Efflurage
 - (c) Picking up (d) Clapping